Catalogue of American Amphibians and Reptiles.

Lovich, J.E. and C.J. McCoy. 1994. *Graptemys gibbonsi.*

Graptemys gibbonsi Lovich and McCoy
Pascagoula Map Turtle

Graptemys pulchra: Cagle, 1952:223 (part).
Graptemys gibbonsi Lovich and McCoy, 1992:293. Type-locality, "Chickasawhay River, Leakesville, Greene County, Mississippi, USA." Holotype, Carnegie Museum 94979, an adult male collected by R.C. Vogt, M. Pappas, and P.S. Freed on 21 July 1978.

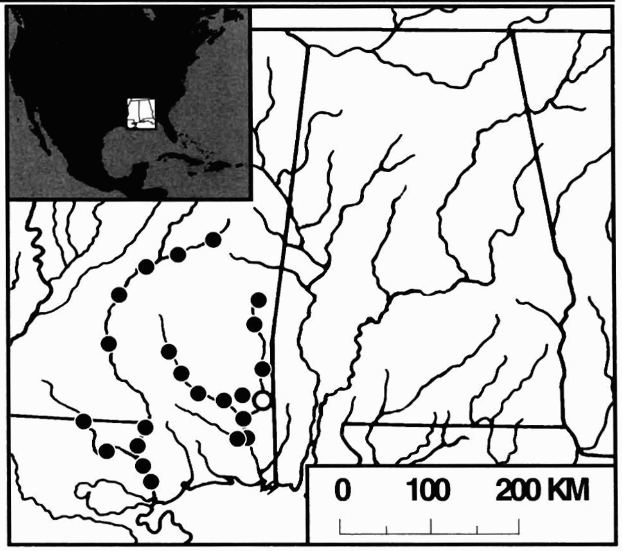
• **Content.** No subspecies are recognized.

• **Definition.** The Pascagoula Map Turtle is a large (to 295 mm carapace length) species. The shell is high-domed, possesses a median keel, and has a single vertical yellow bar on the dorsal surface of each marginal scute. The median carapace keel is composed of prominent spines on the posterior portions of the second and third vertebrals. A complete or broken black stripe, most pronounced anteriorly, marks the median keel of the vertebrals. Pleural scutes 1-3 have circular yellow markings on the distal parts. The plastron is pale yellow with dark pigment on some seams. Ground color of the head and limbs is brown to olive with light yellow or yellowish-green stripes and blotches. The head pattern consists of a large interorbital blotch that is connected to large postorbital blotches on either side of the head. Supraoccipital spots are absent. The dorsal paramedian neck stripes are not expanded anteriorly, but may contact the postorbital blotches. A three-pronged yellow blotch (nasal trident) is usually present on the dorsal head surface behind the nares.

Adult females can be well over twice the length and weight of adult males (Gibbons and Lovich, 1990), and have conspicuously enlarged heads with broad jaw surfaces. Males have longer tails with the vent posterior to the rim of the carapace. Both sexes have relatively flat plastra.

• **Descriptions.** Complete descriptions are in Lovich and McCoy (1992), McCoy and Lovich (in press), and Ernst et al. (1994). Prior descriptions are clouded by the fact that the Pascagoula Map Turtle was formerly considered to be *G. pulchra* (in part). The reader is referred to Lovich (1985) for these composite descriptions.

• **Illustrations.** Color photographs of *Graptemys gibbonsi* are found in Ashton and Ashton (1985), Ernst and Barbour (1972), and Ernst et al. (1994). Black and white photographs are in Ernst and Barbour (1972, 1989), Mount (1975), and Wahlquist (1970). Composite illustrations of *G. gibbonsi* (as *G. pulchra*, in part) are listed in Lovich and McCoy (1992).



Map. The range of *Graptemys gibbonsi.* The large circle marks the type-locality, dots indicate other selected localities (from Iverson, 1992).

• **Distribution.** *Graptemys gibbonsi* is found only in large to medium-sized rivers in the Pascagoula River and Pearl River systems, Mississippi and eastern Louisiana. Pascagoula River system localities are in the Pascagoula, Leaf, and Chickasawhay rivers; Red, Bowie, and Okatoma creeks (Cliburn, 1971); and Tallahala Creek (J.L. Dobie, pers. comm.). *Graptemys gibbonsi* does not occur in either Big Creek or the Escatawpa River, which are Alabama tributaries of the Pascagoula River (Mount, 1975), or in Black Creek, a major tributary of the Pascagoula in Mississippi (Cliburn, 1971). Pearl River drainage populations occur in Ross Barnett Reservoir (Boyd and Vickers, 1963), and in the Pearl and Bogue Chitto rivers (Lovich and McCoy, 1992). Dundee and Rossman (1989) published a record of this species (as *G. pulchra*) from the Tickfaw River at U.S. Highway 190,

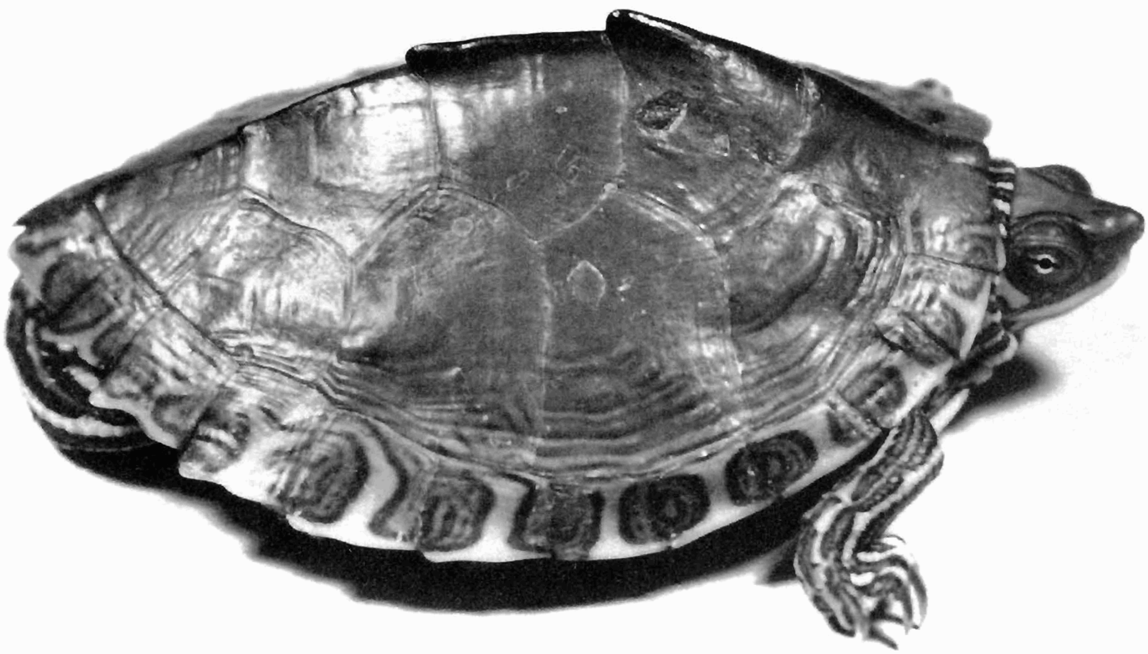


Figure. A male Graptemys gibbonsi from the Chickasawhay River in Greene County, Mississippi. Photograph by J.E. Lovich.

Livingston Parish, Louisiana. Lovich and McCoy (1992) questioned that record, as the species is unknown in the Tangipahoa, Tchefuncte, or Amite rivers, which lie between the Tickfaw River and Bogue Chitto River (Cagle, 1952; Cliburn, 1971).

• **Fossil Record.** None.

• **Pertinent Literature.** Literature prior to the recognition of *Graptemys gibbonsi* as a separate species in the *Graptemys pulchra* complex is summarized in Lovich (1985). Tinkle (1962), Little (1973), and Lovich and Ernst (1989) examined scute morphology in *G. pulchra* (*sensu lato*), including specimens of *G. gibbonsi*. Literature dealing specifically with turtle populations now recognized as *G. gibbonsi* is listed by topic: collecting techniques (Chaney and Smith, 1950), hatchling behavior (Anderson, 1958), natural history data on reproduction, diet, habitat, and conservation (Cagle, 1952; Dundee and Rossman, 1989; McCoy and Lovich, in press; Ernst et al., 1994), geographic distribution (Boyd and Vickers, 1963; Cliburn, 1971), sexual size dimorphism (Gibbons and Lovich, 1990), blood proteins (McKown, 1972), and systematics and taxonomy (Lovich and McCoy, 1992; Lamb et al., 1994).

• **Etymology.** The specific epithet *gibbonsi* is a patronym honoring Dr. J. Whitfield Gibbons of the University of Georgia, Savannah River Ecology Laboratory.

• **Comment.** The Pascagoula Map Turtle was described by Lovich and McCoy (1992), who demonstrated that the species *Graptemys pulchra* Baur (1893:675) is a composite consisting of three distinct, allopatric species. The other species in the complex include *G. pulchra* (*sensu stricto*) of rivers tributary to the Mobile Bay Drainage in Alabama, Mississippi, and northwestern Georgia; and *G. ernsti* in the Escambia Bay drainage of southeastern Alabama and western Florida. The three species are well-differentiated on the basis of morphology and color pattern, and exhibit divergent mtDNA genotypes. These three species, together with *G. barbouri*, form the *Graptemys pulchra* species group (Lovich and McCoy, 1992; Lamb et al., 1994). Additional information on *G. gibbonsi* (as *G. pulchra*, in part) was summarized by Lovich (1985).

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